REMARKS

U. S. Patent No. 4,718,605, issued January 12, 1988, recently came to the attention of applicant and it was seen that Claims 1-12 thereof could be made in subject application. Claims 1 through 12 of U. S. Patent No. 4,718,605 are presented herewith as new Claims 63 through 74 for the purpose of having an INTERFERENCE declared. It is submitted thatban Interference should be established having Counts 1-12, with Claims 1-12 of U. S. Patent No. 4,718,605 and Claims 63-74 of this application, respectively, corresponding to the Counts.

It is noted that it appears that subject application and U. S. Patent No. 4,718,605 to Hunter were co-pending in the same Group Art Unit, and have filing dates which are only 1 month and 30 days apart. In view of the fact that the filing date of applicant is less than three months subsequent to the filing date of Hunter, a declaration is submitted in accordance with 37 C. F. R. 1.608 (a) alleging a basis upon which applicant is entitled to judgment relative to the patentee.

In accordance with 37 C. F. R. 1.607 (a), Claims 63-74 are copied below with the terms of the claims applied to the structure shown in subject application:

Claim 63 (Claim 1 of U. S. Patent No. 4,718,605). An oscillating sprinkler unit (Figure 1), comprising: a sprinkler head (output cap 108, nozzle opening 122) mounted for rotation about a first axis; a drive motor (Page 12, lines 20, 21); a reversible gear train (gears 34, 32, 30, 26, 42, 44) for drivingly connecting said drive motor for driving said sprinkler head in alternate directions, comprising final drive gear means (ring gear 50) connected to said sprinkler head, shiftable drive means comprising alternately operable terminal gear means (gears 34 and 44) and carrier means (gear cage 18) for carrying said terminal gear means and shiftable to alternately engageable positions (see Figures 3 and 5) with said final drive gear means (ring gear 50) for driving said sprinkler head in alternate directions; shifting arm means (toggle device 64) pivotally mounted adjacent said carrier means and movable between alternate shifting positions (see Figures 3 and 5) by engagement with shoulder means (projection 100 and projection 200) carried by said final drive gear means (ring gear 50) and lost motion means (post 60 and opening 88; see Page 43, lines 10-12) for connecting said shifting arm means (toggle device 64) with said carrier means (gear cage 18) for shifting said carrier means between said alternately engageable positions upon movement of said shifting arm means between said alternate shifting positions; first over-center biasing means (spring 39 and notches 35, 37) for maintaining said

carrier means (gear cage 18) in a selected one of said alternately engageable positions until positively shifted therefrom by said shifting arm means (toggle device 64); and second over-center biasing means (spring means 90 and 92 and notches 74, 78 and 76, 80) for maintaining said shifting arm means (toggle device 64) in a selected one of alternate shifting positions by said shoulder means (projection 100 and projection 200).

Claim 64 (Claim 2 of U. S. Patent No. 4,718,605). The sprinkler of claim 63 wherein: said shiftable drive means comprises a drive gear (gear 26) driven by said drive motor (Page 12, lines 20, 21) and mounted for rotation about a second axis (axis of shaft 12) spaced from said first axis; said carrier means (gear cage 18) is mounted for pivotal movement about said second axis (axis of shaft 12); and said shifting arm means (toggle device 64) is mounted for pivotal movement about said first axis.

Claim 65 (Claim 3 of U. S. Patent No. 4,718,605). The sprinkler unit of claim 64 wherein: said carrier means (gear cage 18) comprises a yoke (a top plate 20 and a bottom plate 22 with cooperating openings 21 and 23) surrounding said first axis and said lost motion means (post 60 and opening 88) comprises shoulder means (each side of post 60 facing ends of opening 88) on the opposite side of said first axis from said second axis (axis of shaft 12) for alternate engagement with said shifting arm means (toggle device 64).

Claim 66 (Claim 4 of U. S. Patent No. 4,718,605). The sprinkler unit of claim 65 wherein: said first over-center means (spring 39 and notches 35 and 37) comprises a spring (spring 39) engaging said yoke (projecting member 31) between said shoulder means (notch 35 between sides of post 60).

Claim 67 (Claim 5 of U. S. Patent No. 4,718,605). The sprinkler of claim 66 wherein: said spring comprises a generally U-shaped leaf spring (see Figures 3, 6 - springs 39).

Claim 68 (Claim 6 of U. S. Patent No. 4,718,605). The sprinkler system of claim 66 wherein: said first over-center means (spring 39 and notches 35 and 37) maintains said terminal gear means (gears 34 or 44) in engagement until said said yoke (a top plate 20 and a bottom plate 22 with cooperating openings 21 and 23) is biased by said second over-center means (spring means 90 and 92 and notches 74, 78 and 76, 80) through said shifting arm means (toggle device 64).

Claim 69 (Claim 7 of U. S. Patent No. 4,718,605). An oscillating sprinkler unit, (Figure 1) comprising: a sprinkler head (output cap, nozzle opening 122) mounted for rotation about a first axis (axis of shaft member 51); a drive motor (Page 12, lines 20, 21); a reversible gear train (gears 34, 32, 30, 26, 42, 44) for drivingly connecting said drive motor for driving said sprinkler head in alternate directions, comprising a final drive gear (ring gear 50) connected to said sprinkler head, shiftable drive means comprising alternately operable terminal gear means (gears 34 and 44) and carrier means (gear cage 18) for carrying said terminal gear means and shiftable to alternately engageable positions with said final drive gear for driving said sprinkler head in alternate directions; shifting arm means (toggle means 64) pivotally mounted adjacent said carrier means and movable between alternate shifting positions (see Figures 3 and 5) by engagement with

shoulder means (projection 100 and projection 200) carried by said final drive gear means (ring gear 50), and lost motion means (post 60 and opening 88, see Page 43, lines 10-12) for providing engagement with said carrier means (gear cage 18) for shifting said carrier means (gear cage 18) between said alternately engageable positions (see Figures 3 and 5) upon movement of said shifting arm means (toggle means 64) between said alternate shifting positions (see Figures 3 and 5); first over-center biasing means (spring 39 and notches 35, 37) for maintaining said carrier means in a selected one of said alternately engageable positions until positively shifted therefrom by said shifting arms means; and second over-center biasing means (spring means 90 and 92 and notches 74, 78 and 76, 80) for maintaining said shifting arm means in a selected one of alternate shifting positions by said shoulder means.

Claim 70 (Claim 8 of U. S. Patent No. 4,718,605).

The sprinkler of claim 69 wherein: said shiftable drive means includes a drive gear (gear 26) driven by said drive motor and mounted for rotation about a second axis spaced from said first axis; said carrier means (gear cage 18) mounted for pivotal movement about said second axis; and said shifting arm means (toggle device 64) mounted for pivotal movement about said first axis.

Claim 71 (Claim 9 of U. S. Patent No. 4,718,605). The sprinkler unit of claim 70 wherein: said carrier means (gear cage 18) comprises a yoke surrounding said first axis and said lost motion means (post 60 and opening 88) comprises shoulder means (each side of post 60 facing ends of opening 88) on the opposite side of said first axis from said second axis; said over-center means (spring 39 and notches 35, 37) comprises spring means (spring 39) engaging said yoke (projecting member 31) between said shoulder means (notch 35 between sides of post 60); and said spring means (spring 39) comprises a generally U-shaped leaf spring (see Figures 3 and 6).

Claim 72 (Claim 10 of U. S. Patent No. 4,718,605). The sprinkler system of claim 71 wherein: said first over-center means (spring 39 and notches 35, 37) maintains said terminal gear means (gears 34, 44) in engagement until said yoke is biased by said second over-center means (springs 90 and 92 and notches 74, 78 and 76, 80) through said shifting arm means (toggle device 64).

Claim 73 (Claim 11 of U. S. Patent No. 4,718,605). An oscillating sprinkler unit (Figure 1), comprising: a housing (cylindrical housing 2) having a generally cylindrical configuration with a central axis, an inlet (opening 95) at a lower end for attachment to a source of water and an outlet (upper hollow output shaft 51A) at an upper end; a sprinkler head (output cap 108, nozzle opening 122) mounted at said upper end for rotation about said central axis; a drive motor (Page 12, lines 20, 21) mounted in said housing for driving said sprinkler head; a shiftable gear train (gears 34, 32, 30, 26, 42, 44) comprising terminal drive gear means, including a pair of terminal gears (gears 34, 44), and an internal gear (ring gear 50) connected to said sprinkler head, shiftable means for alternatively shifting said terminal gears alternatively into engagement with said internal gear for driving said sprinkler head in alternate directions; said shiftable gear train comprising a drive shaft (shaft 12) driven by said drive motor and a drive gear (gear 26) mounted for rotation about a second axis offset from said first axis; a pivoting yoke (a top plate 20 and a bottom plate 22 with cooperating openings 21 and 23) including a carrier mounted for pivotal movement about said second axis; one of said terminal gears (gear 34) mounted on said carrier on one side of said second axis, and the other of said terminal gears (gear 44) mounted on said carrier on the other side of said second axis; a shifting arm means (toggle means 64) mounted adjacent said

yoke for pivotal movement about said first axis to alternate shifting positions by engagement with shoulder means (projection 100 and projection 200) carried by said internal gear (ring gear 50); lost motion means (post 60 and opening 88, see Page 43, lines 10-12) disposed between said shifting arm and said yoke for connecting said shifting arm means to said yoke for shifting said terminal gears to alternately engageable positions; first over-center biasing means (spring 39 and notches 35, 37) for maintaining said carrier in a selected one of said alternately engageable positions until positively shifted therefrom by said shifting arm means; and second over-center biasing means (spring means 90 and 92 and notches 74, 78 and 76, 80) for maintaining said shifting arm means in a selected one of said alternate shifting positions until engagement by said shoulder means (projection 100 and projection 200).

Claim 74 (Claim 12 of U. S. Patent No. 4,718,605).
A sprinkler unit according to claim 73 wherein: said first over-center biasing means (spring 39 and notches 35, 37) comprises a generally U-shaped spring (see Figures 3, 6) disposed between said carrier (gear cage 18) and fixed means (notch 37) on said housing for biasing said carrier to said one of said alternately engageable positions.

It would be appreciated if an INTERFERENCE could be set up as soon as possible since "sprinkler units" are being sold by a competitor of applicant's which infringe one or more of the above claims.

Respectfully submitted,
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